Abstract of the Disclosure

A method and a device are provided for measuring the temperature of windings of a drive motor, especially a three-phase motor, which is supplied by a converter with three controlled half bridges from a direct current intermediate circuit. The method, a corresponding device and a control system offer more accurate results with less complicated circuit engineering. To this end, one current flux traversing at least one of the windings of the motor is measured by the converter while approximately knowing at least one cold resistance and other parameters of the motor. A temperature change of the windings is calculated from a change in the current flux based on a change of the temperature-dependent resistance.